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I. AMENDMENT

In the Claims:

Please cancel claim 19 without prejudice or disclaimer.

Please amend claims 13, 20 and 30 as follows:

13. (Twice Amended) A method of obtaining photochromic latex comprising:

preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;

forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm;

adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;

polymerizing of the reaction mixture; and

recovering photochromic latex.

20. (Amended) The method of claim 13, wherein the organic phase is dispersed in the aqueous phase in the form of droplets having a diameter of 50 to 300 nm.

30. (Twice Amended) A photochromic latex prepared by a method comprising:

preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;

forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm;

adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;

polymerizing of the reaction mixture; and

recovering photochromic latex.

II. RESPONSE

A. The Status of the Claims

Claims 13-30 were pending at the time of the Action. The Action indicates that claims 14-16, 19-20, 23-26 and 29 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants note that claims 13 and 30 have been amended herewith to include the subject matter of claim 19 and have concurrently cancelled claim 19 without prejudice or disclaimer. Furthermore, claim 20 has been amended to change its dependency from claim 19 to claim 13.

Accordingly, claims 13-18 and 20-30 are currently pending. A copy of amended claims 13, 20 and 30 with editing indicia is attached as Appendix A. A clean copy of the presently pending claims is attached as Appendix B.

B. The Presently Pending Claims are Allowable and the Objection of Claims 14-16, 19-20, 23-26 and 29 is Overcome

Applicants' present claims, claims 13-18 and 20-30, are allowable because the independent claims, claims 13 and 30, have been amended to include the subject matter of allowable claim 19, as suggested at page 7 of the Action. As such, the objection of claims 14-16, 19-20, 23-26 and 29 is overcome. Applicants reserve the right to pursue broader subject matter in a continuing application.

Accordingly, Applicants respectfully request that the objection of claim 14-16, 19-20, 23-26 and 29 be withdrawn. Applicants further submit that the present case is in condition for allowance, and such favorable action is respectfully requested.

C. The Present Rejections

The Action cites to U.S. Application No. 09/939,151 to Maisonnier *et al.* ("the '151 application") in making two 35 U.S.C. § 102(e) rejections and one obviousness-type double patenting rejection. Applicants respectfully note that it appears the Action mistakenly refers to

the '151 application as two separate references when making its 102(e) rejections, *i.e.*, "Application No. 09/939,151" and "U.S. 2002/0128339 to Maisonnier *et al.*" Accordingly, Applicants will address the Action's anticipation rejections in a single section.

Applicants respectfully traverse all of the rejections over the '151 application. As discussed in the following sections, the '151 application does not anticipate the presently pending claims because: (1) the present claims include subject matter the Action has found to be allowable; and (2) as admitted by the Action, the '151 application does not teach or suggest the use of a miniemulsion. Moreover, the provisional double-patenting rejection is improper because Applicants' presently pending claims are patentably distinct from the claims in the '151 application.

1. The Anticipation Rejections Are Overcome

The Action provisionally rejects claims 13, 17-18, 21-22, 27-28 and 30 under 35 U.S.C. § 102(e) as being anticipated by the '151 application. The Action states the '151 application teaches "a method of preparing a photochromic latex comprising (1) preparing an aqueous emulsion of at least one monomer Z, at least one photochromic chromene compound, and (2) polymerizing in the presence of a water soluble initiator (*i.e.*, polymerization primer) to obtain (*i.e.*, recovery is implied) the photochromic latex." The Action further states that claim 11 of the '151 application limits the photochromic latex particle size to 50-400 nm. [1]

As noted above, present claims 13 and 30 include the subject matter of claim 19, which was indicated by the Action to be allowable if rewritten into independent form. Therefore, all of the anticipation rejections are overcome.

[1] In making these rejections, the Action incorrectly characterized claim 13 as it was pending at the time of the Action as including "droplets having diameter of 50-500 nm." Prior to the amendments made in the present Response, claim 13, as pending at the time of the Action, did not include such a limitation.

Despite the above, Applicants further traverse the anticipation rejections because the '151 application does not teach or suggest each and every element of pending claims 13, 17-18, 21-22, 27-28 and 30. *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1327, 58 U.S.P.Q.2d 1545, 1552 (Fed. Cir. 2001).

Applicants presently claim "[a] method of obtaining photochromic latex comprising ... forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm... ." *See* Appendix B, claims 13 and 30. The miniemulsion is subsequently polymerized to form the photochromic latex.

The '151 application teaches a method of making a photochromic latex prepared by mixing a photochromic compound with monomers followed by polymerization. *See* the '151 application, ¶ 0067. The ***post***-polymerized latex particles "have a particle diameter of between 50 and 400 nm." *See* the '151 application, ¶ 0074.

In contrast, the '151 application does not teach or suggest the use of a miniemulsion "comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm." In fact, the Action admits this by stating that the '151 application "does not state specifically the formation of a miniemulsion." (*See*) the Action, page 3.

Moreover, the presently claimed miniemulsion is a ***pre***-polymerization product while the photochromic latex particle disclosed in the '151 application is a ***post***-polymerization product. *See* Applicants specification, page 4, lines 3-11 and the '151 application, ¶ 0067.

Finally, the '151 application simply does not teach or suggest ***pre***-polymerized organic phase "droplets having a diameter of 50 to 500 nm." Again, the cited reference does not teach or suggest the use of ***pre***-polymerized miniemulsions to make ***post***-polymerized latex particles.

As such, the '151 application does not teach or suggest every element of the presently pending claims. In fact, the Action admits this much. Thus, present claims 13, 17-18, 21-22, 27-28 and 30 are not anticipated by the '151 application.

Accordingly, Applicants respectfully request that the provisional rejections of claims 13, 17-18, 21-22, 27-28 and 30 as being anticipated by the '151 application be withdrawn.

D. Double Patenting Rejection is Overcome

The Action provisionally rejects claims 13, 18-19, 21-22 and 27-28 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 6, 9 and 11 of the '151 application. The Action contends that it would have been "obvious that miniemulsions are being formed because the particle size range lies squarely within the 50-500 nm range set forth in the present application."

Applicants respectfully traverse. Present claims 13, 18-19, 21-22 and 27-28 are patentably distinct from claims 1, 4, 6, 9 and 11 of the '151 application.[2]

As discussed in detail above and incorporated into this section by reference, the '151 application is directed towards ***post***-polymerized latex particles. The '151 application does not teach, suggest or claim the of use a ***pre***-polymerized miniemulsion comprising "an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm" to make ***post***-polymerized latex particles.

Moreover, it cannot be said that a ***post***-polymerized latex particle having a diameter of 50-400 nm necessarily means that a ***pre***-polymerized miniemulsion was formed, much less the

[2] Applicants note that a preliminary amendment was filed in the '151 application on August 24, 2001 canceling claims 1-23 and adding claims 24-54. As such, Applicants believe that the provisional double patenting rejection is moot. In any event, claims 24-54 of the '151 application, which claim similar subject matter as cancelled claims 1, 4, 6, 9 and 11, are patentably distinct from the present invention for the same reasons.

presently claimed miniemulsion. In fact, the Action cites to no evidence to support such a position. Thus, the presently pending claims are patentably distinct from the claims in the '151 application.

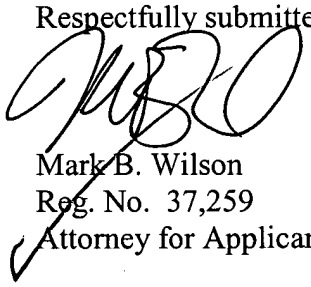
Accordingly, Applicants respectfully request that the provisional obviousness double type patenting rejection of present claims 13, 18-19, 21-22 and 27-28 be withdrawn.

E. Conclusion

Applicants believe that the present document is a full and complete response to the Office Action dated December 19, 2002. In conclusion, Applicants submit that, in light of the foregoing remarks, the present case is in condition for allowance, and such favorable action is respectfully requested.

The Examiner is invited to contact the undersigned attorney at (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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APPENDIX A
Amended Claims With Editing Indicia

13. (Twice Amended) A method of obtaining photochromic latex comprising:
preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;
forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase <u>in the form of droplets having a diameter of 50 to 500 nm</u>;
adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;
polymerizing of the reaction mixture, and
recovering photochromic latex.

20. (Amended) The method of claim [19] <u>13</u>, wherein the organic phase is dispersed in the aqueous phase in the form of droplets having a diameter of 50 to 300 nm.

30. (Twice Amended) A photochromic latex prepared by a method comprising:
preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;
forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase <u>in the form of droplets having a diameter of 50 to 500 nm</u>;
adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;
polymerizing of the reaction mixture, and
recovering photochromic latex.

APPENDIX B
Presently Pending Claims

13. A method of obtaining photochromic latex comprising:

preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;

forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm;

adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;

polymerizing of the reaction mixture, and

recovering photochromic latex.

14. The method of claim 13, wherein the polymerization primer is mixed with the other components of the mixture before formation of the miniemulsion.

15. The method of claim 14, wherein additional polymerization primer is added to the mixture after formation of the miniemulsion.

16. The method of claim 13, wherein the polymerization primer is mixed with the other components of the mixture after formation of the miniemulsion.

17. The method of claim 13, further comprising degassing the miniemulsion before the addition of the polymerization primer.

18. The method of claim 13, wherein the polymerization primer is added to the mixture during the formation of the miniemulsion.

20. The method of claim 13, wherein the organic phase is dispersed in the aqueous phase in the form of droplets having a diameter of 50 to 300 nm.

21. The method of claim 13, wherein the organic monomer Z is an alkyl (meth) acrylate.

22. The method of claim 13, wherein the photochromic compound is a chromene or spirooxazine.

23. The method of claim 13, wherein the Z monomer is an alkyl methacrylate and the photochromic compound is a spirooxazine.

24. The method of claim 13, wherein the mixture further comprises at least one stabilization agent.

25. The method of claim 24, wherein the stabilization agent is an n-alkane, a halogenated n-alkane, a fatty alcohol, or an ester of a fatty alcohol.

26. The method of claim 25, wherein the stabilization agent is hexadecane, cetyl alcohol, or stearyl methacrylate.

27. The method of claim 13, wherein the polymerization primer is soluble in the aqueous phase or in the organic phase.

28. The method of claim 27, wherein the polymerization primer is azobisisobutyronitrile or 2,2'-azobis (2-amidinopropane) dihydrochloride or sodium persulfate.

29. The method of claim 13, wherein formation of the miniemulsion comprises passing the mixture through a microfluidizing apparatus.

30. A photochromic latex prepared by a method comprising:

preparing a mixture comprising at least one organic monomer Z, which monomer comprises at least one C=C group and is polymerizable by a radical process, at least one organic photochromic compound, at least one surfactant, and water;

forming a miniemulsion of the mixture, the miniemulsion comprising an organic phase dispersed in an aqueous phase in the form of droplets having a diameter of 50 to 500 nm;

adding a polymerization primer to the mixture before, during, or after forming the miniemulsion;

polymerizing of the reaction mixture, and

recovering photochromic latex.